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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,620	07/17/2003	Hyeong Scog Kim	HI-0157	9656
34610 7590 05/31/2007 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			EXAMINER NGUYEN, TU X	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 05/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/620,620

Applicant(s)

KIM, HYEONG SEOG

Examiner

Tu X. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 16 and 17 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-13, 19 and 21-25 is/are rejected.
- 7) ☒ Claim(s) 14 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's arguments, dated 3/8/07 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-2, 4-5, 7-9, 10-11, 13, 19, 21 and 24-25, are rejected under 35 U.S.C. 102(e) as being anticipated by Morelli et al. (US Patent 6978149).

Regarding claims 1 and 21, Morelliet al. disclose a wireless communications device, comprising:

a communication sensitivity checking portion of the wireless communications device configured to check a sensitivity of at least one communications channel used to communicate with an external access point (see fig.10) and to provide a sensitivity signal based on the checked sensitivity (see col.3 lines 40-45, col.12 lines 29-31, “signal strength” corresponds to “sensitivity channel”); and

a power mode changing portion of the wireless communications device configured to receive the sensitivity signal from the communication sensitivity checking portion and to change

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a power mode of the wireless communications device between a working mode and at least one sleep mode based on the sensitivity signal received from the communication checking portion (see col.3 lines 55-56).

Regarding claim 2, Morelliet al. disclose the power mode changing portion is configured to change a power mode of the wireless communications device into the working mode if the sensitivity signal indicates that the communications sensitivity is greater than a predefined reference value (see col.3 lines 53-54), and wherein the power mode changing portion is configured to change a power mode of the wireless communications device into the at least one sleep mode if the sensitivity signal indicates that the communications sensitivity is less than a predefined sensitivity value (see col.4 lines 40-44).

Regarding claim 4, Morelliet al. disclose the wireless communications device is in the sleep mode, both a transmission portion and a receive portion of the wireless communications device are put in a power down mode (see col.4 lines 36-44).

Regarding claim 5, Morelliet al. disclose the power mode changing portion is configured to switch the power mode into a working mode once a predetermined time period elapses after the power mode has been switched to a sleep mode (col.15 lines 24-25).

Regarding claim 7, Morelliet al. disclose a data checking portion configured to determine whether data needs to be transmitted to an external access point and configured to output a data check signal, and wherein the power mode changing portion is also configured to change a power mode of the wireless communications device based on the data check signal (see col.5 lines 1-4).

Regarding claims 8 and 13, Morelliet al. disclose the power changing mode portion is configured to change a power mode of the wireless communications device into a transmission sleep mode if the data check signal indicates that there is no data to be transmitted, and wherein the power changing mode portion is configured to change a power mode of the wireless communications device into a working mode if the data check signal indicates that there is data to be transmitted (see col.4 lines 8-11).

Regarding claim 9, Morelliet al. disclose when the wireless communications device is in the transmission sleep mode, only a transmission portion of wireless communications device is in a power down mode (see col.4 lines 26-35).

Regarding claim 10, Morelliet al. disclose wherein the wireless communication device is a wireless LAN module (see fig.1, element 30).

Regarding claim 11, Morelliet al. disclose a wireless LAN module (see fig.10, element 210), comprising:

for checking a communication sensitivity of at least one switching means for switching a power mode of the wireless LAN module to a power down mode if the checking means determines that a communication sensitivity is less than a predefined sensitivity value (see col.4 lines 56-65), and wherein the switching means is also configured to switch the power mode of the wireless LAN module to a normal mode after a predetermined delay period elapses after the power mode has been set to the power down mode (col.15 lines 24-25).

Regarding claim 19, Morelliet al. disclose a method of setting up a wireless LAN module to achieve power savings, comprising:

attempting to set up a wireless communications channel (see fig.5, element 97a);

checking to determine if the channel was properly set up (see fig.5, element 97b);
changing a power mode of the wireless LAN module to a power down mode if a result of the checking indicates that the channel was not properly set up (see fig.5, element 97i);
changing the power mode of the wireless LAN module to a normal mode after a predetermined delay period expires after the power mode of the wireless LAN module is set to the power down mode (see col.15 lines 24-25).

Regarding claim 24, Morelliet al. disclose a power management of a wireless LAN module, comprising:

setting up a communication channel of a wireless LAN network (see col.8 lines 34-45, the mobile device checking the signal quality forward setting up a communication channel);
checking a communication sensitivity of the set channel (see col.8 lines 34-45); and
the wireless LAN module checking a communication sensitivity of the set channel (see fig.1, element 30, col.8 lines 39-41); and
changing a transmission power of the wireless LAN module based on the checked communication sensitivity (see abstract).

Regarding claim 25, Morelliet al. disclose if the checked communication sensitivity is greater than a predetermined value, then changing the transmission power includes changing the transmission power to a low level (see col.6 lines 59-60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morelli et al. (US Patent 6978149) in view of Willars (US Patent 6,480,476).

Regarding claim 3, Morelliet al. fail to disclose the predefined sensitivity value can be changed by a user.

In an analogous art, variable sleep cycle, Willars discloses the predefined sensitivity value can be changed by a user (see col.8 lines 42-45). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Morelliet al. with the above teaching of Willars in order to setting the variable sleep mode based on factors of battery resource optimization, desired performance, etc (as suggested by Willars, see col.8 lines 44-45).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morelli et al. (US Patent 6978149) in view of Batchner et al. (US Patent 6,760,671).

Regarding claim 12, Morelli et al. fail to disclose the predefined sensitivity value is approximately 70 percent.

Batchner et al. disclose the predefined sensitivity value is approximately 70 percent (see col.3 lines 54-55, "70 percent" is within a broader range of "set to detect any levels").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Morelli et al with the above teaching of Batchner et

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al. in order to provide a high threshold setting a value thereby the circuit actuates less frequently thereby consuming less energy.

Claims 22-23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morelli et al. (US Patent 6978149).

Regarding claims 22-23, Morelliet al. fail to disclose if the wireless communications device is adjacent to the external access point, a power output level of a RF amplification block can be transmitted at a much lower level. The examiner takes an official notice that a RF amplification block can be transmitted at a much lower level if the wireless communications device is adjacent to the external access point, the concept is well know in the art that the transmission needs a high power when the distance between the two transceivers having a greater distance, and the transmission power is reduced when the distance is closer between the two transceivers.

Allowable Subject Matter

Claims 15 and 18, are allowed.

Claims 14 and 20, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding dependent claim 14, the prior art fails to teach "wherein if the checking means determines that the communications sensitivity is less than a first predetermined sensitivity

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value, the switching means switches the power mode of the wireless LAN module to a normal mode after a first predetermined delay period elapses after the power mode has been set to the power down mode, and wherein if the checking means determines that the communications sensitivity is less than a second predetermined sensitivity value, the switching means switches the power mode of the wireless LAN module to the normal mode after a second predetermined delay period elapses after the power mode has been set to the power down mode”, as cited in the claim.

Regarding independent claim 15, the prior arts fail to teach “changing a power mode of the wireless LAN module back to a working mode after a predetermined delay period expires after the wireless LAN module is set to the sleep mode, wherein if the result of the checking indicates that the communications sensitivity is less than a first predetermined sensitivity value, the power mode of the wireless LAN module is changed back to the working mode after a first predetermined delay period expires, and wherein if the result of the checking indicates that the communications sensitivity is less than a second predetermined sensitivity value, the power mode of the wireless LAN module is changed back to the working mode after a second predetermined delay period expires”, as cited in the claim.

Regarding dependent claim 20, the prior arts fail to teach “if the checking means determines that a communications sensitivity is less than a predetermined sensitivity value, the switching means switches the power mode of the wireless LAN module to a normal mode after a first predetermined delayed period elapses after the power mode has been set to the power down mode, and wherein the checking means determines that a communications sensitivity is less than a second predetermined sensitivity value, the switching means switches the power

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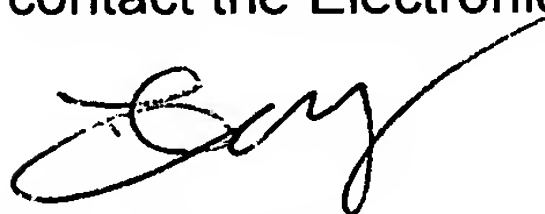
mode of the wireless LAN module to a normal mode after a second predetermined delay period elapses after the power mode has been set to the power down mode", as cited in the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Tu Nguyen', written over the date line.

May 15, 2007